



Digital Economy Ecosystem Report

North Iowa

December 10, 2020

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Meeting Objectives

1. Review **CORI's data analysis for the current state of your region's digital economy**, focused on entrepreneurship and innovation, digital employment, remote work, and digital employers
2. **Uncover new insights** inspired by the data discussion today
3. **Review current status of assessment process** and next steps



Agenda & Contents

Introduction and Context

Economic Baseline / Foundations

Digital Economy Direct Drivers

Overall Assessment Check-In



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Introduction and Context

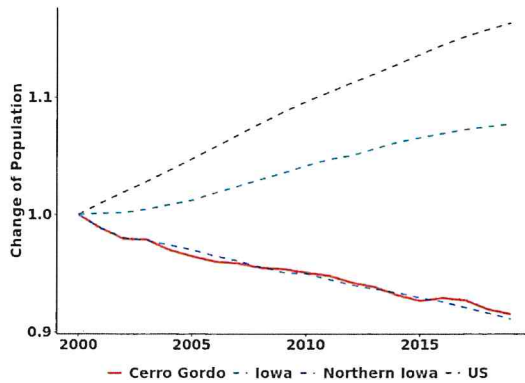
Economic Baseline / Foundations

Digital Economy Direct Drivers

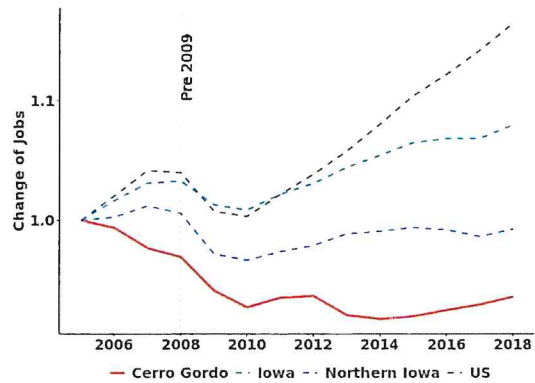
Overall Assessment Check-In



The region has experienced the dual challenges of population loss and lagging employment



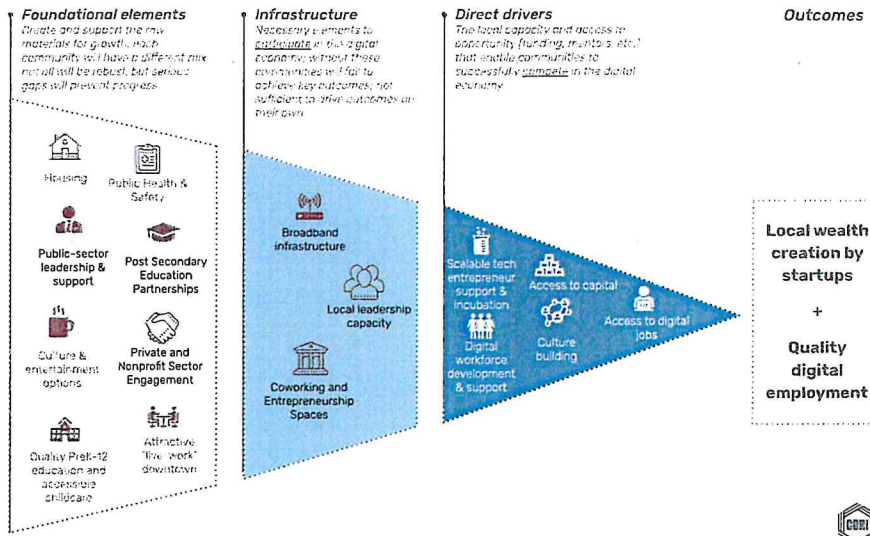
Source: BEA



We've also determined a robust model for community progress

- Clear outcomes
- Deep understanding of required elements
- Awareness of interdependence of all elements

Digital Economy Ecosystem Model: Elements & Outcomes



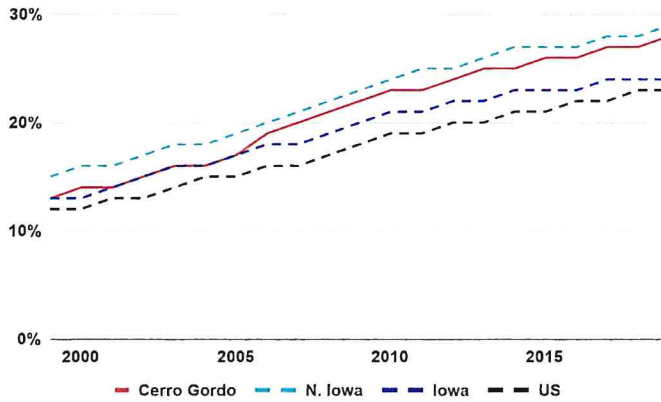
Report Focus

- **Focus area** - Cerro Gordo
- **Service area** - Butler, Chickasaw, Hancock, Floyd, Franklin, Kossuth, Mitchell, Winnebago, Worth, Wright



These dynamics have resulted in a rapidly aging workforce

Share of workers aged 55 and older



In 2019...

- 29% of N. Iowa workers were 55 or older.
- There were nearly as many workers older than 65 (5112) than there are 19 to 24 (5861)

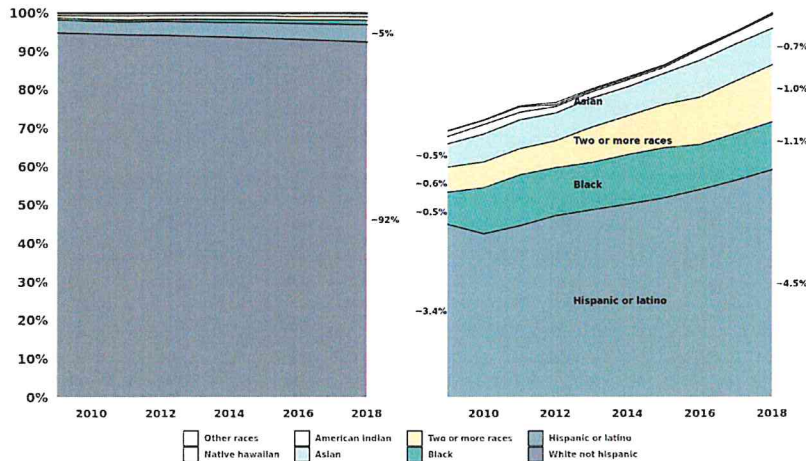
Source: Quarterly Workforce Indicators



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The population is also becoming more diverse...

N. Iowa Racial and Ethnic Demographics



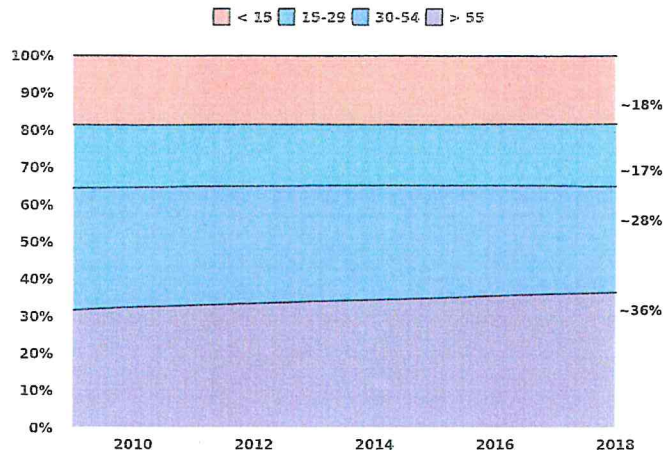
Source: American Community Survey



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The region is aging...

N. Iowa Age Demographics



Source: American Community Survey



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...and experiencing out-migration

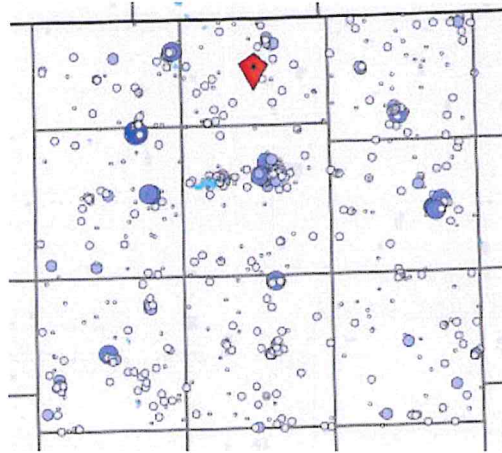
County	Net migration outside of the region: 2014 - 2018	County	Net migration outside of the region: 2014 - 2018
Butler County	-417	Kossuth County	-13
Cerro Gordo County	-1719	Mitchell County	-254
Chickasaw County	-773	Winnebago County	-209
Floyd County	-251	Worth County	126
Franklin County	-109	Wright County	253
Hancock County	-84	Grand Total	-3450

Source: American Community Survey



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Goods-producing industries are spread throughout the region

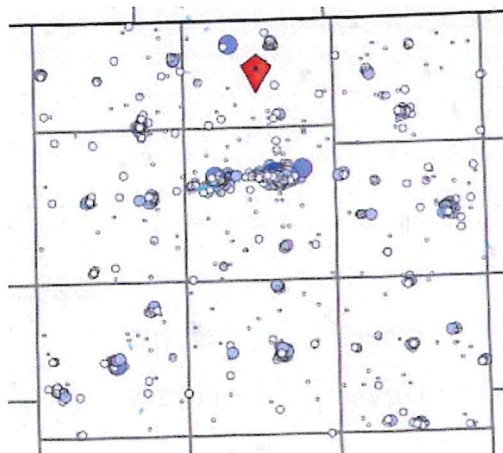


Cerro Gordo County accounts for **21% of manufacturing employment** in the region.

Source: US Census LEHD, *BEA

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Cerro Gordo county serves as a hub for retail, health care, and other service industries



Cerro Gordo County accounts for **more than half** of the healthcare, retail and food service, and professional services employment in the region.

Source: US Census LEHD, *BEA

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...and this diverse population is young

Median age by race and ethnic group - 2018

	White Alone	Hispanic	Black	Two or more races	Asian
Butler County	44	24	15	43	26
Cerro Gordo County	47	27	23	18	39
Chickasaw County	45	24	52	6	37
Floyd County	45	24	25	11	55
Franklin County	49	24	26	7	
Hancock County	46	25	46	16	34
Kossuth County	47	24	22	22	37
Mitchell County	44	35	48	21	58
Winnebago County	45	20	24	20	20
Worth County	46	25	16	13	50
Wright County	49	22	14	16	28

Source: American Community Survey, *US Census OnTheMap

% of workers 29 or younger in N. Iowa (2018)*:

- Hispanic: 6.5%
- Black: 2.5%
- Asian: 1.3%
- Two or more races: 1.7%



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Despite these headwinds, the region has a strong mix of industries led by manufacturing, healthcare, and ag

Largest Industries	2018 Employment	5yr Change
Manufacturing	12,471	7.4%
Health Care and Social Assistance	10,707	4.8%
State and Local Gov't*	10,641	0%
Farming*	9,778	-5.7%
Retail	6,301	-2.8%

Source: US Census LEHD, *BEA

Automation is reshaping rural economies by eroding manufacturing employment. Manufacturing employment in N. Iowa is **down 12% since 2002.**

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Productivity in the region has remained competitive with the state and the US

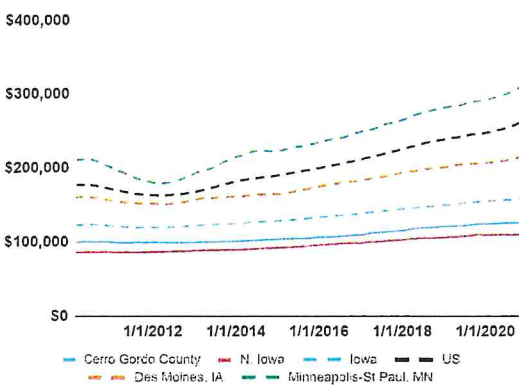
	Cerro Gordo	Northern Iowa	Iowa	US
Median household income - 2018*	\$52,902	\$54,146	\$58,580	\$60,293
Median household income - 5yr change*	18%	12%	13%	14%
GDP per capita	\$61,800	\$60,900	\$60,100	\$62,500
GDP per worker	\$83,800	\$92,700	\$90,900	\$101,900
Per capita income	\$53,342	\$52,533	\$50,124	\$54,446

Source: BEA, *American Community Survey

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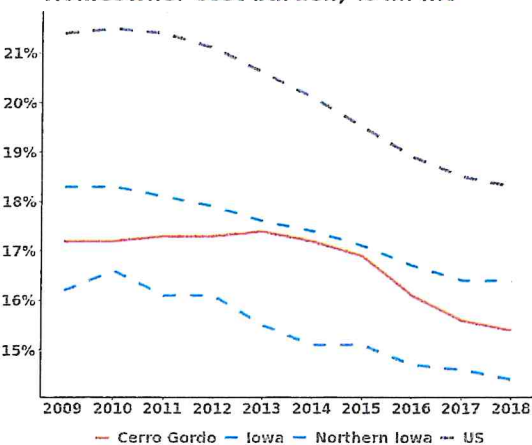
The region offers a lower cost of living compared to the rest of the state and the US...

Zillow Home Value Index



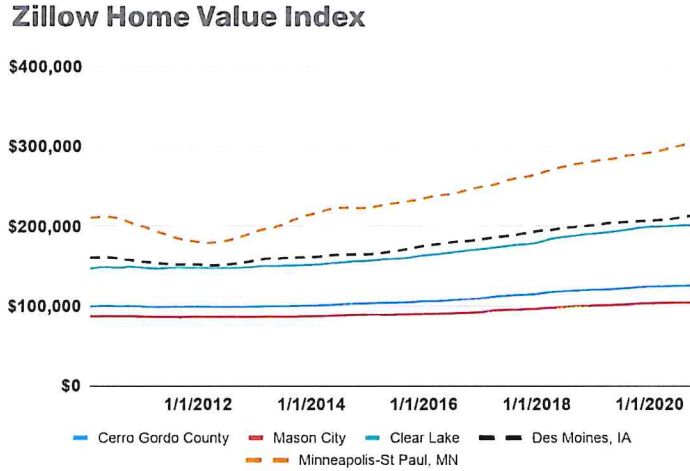
Source: Zillow

Homeowner cost burden, % hh inc



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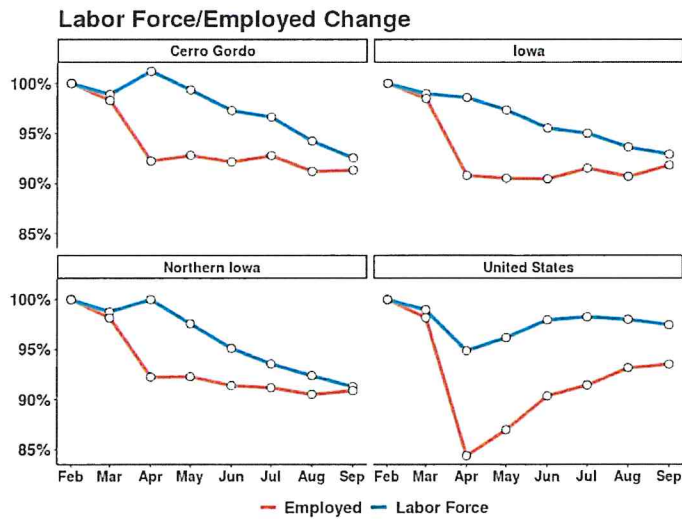
...while local amenities are driving up housing costs in Clear Lake compared to the rest of the region



Source: Zillow

B1

The economic impact of the pandemic has been severe in the region



Source: BLS



B2

Takeaways & Discussion

- The region faces several economic challenges, including declining population, slow employment growth, and the risk of automation—issues only exacerbated by the pandemic.
- Despite these challenges, the region has a strong mix of industries and has remained competitive with the state and US in terms of productivity.
- The region is highly affordable compared to the state and nearby metros, with Clear Lake serving as an outlier as demand grows to live in the amenity-rich community.

Questions:

- How do you see these trends connecting to the need to build a digital economy?
- Have we missed anything that is key to understanding the region?

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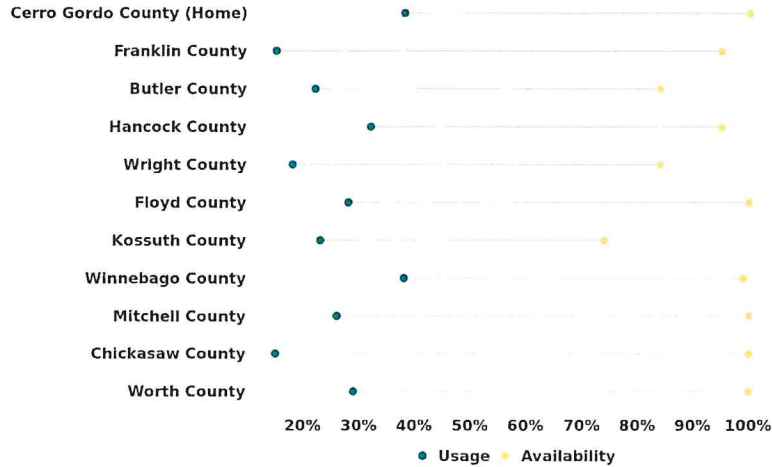
Digital Economy Direct Drivers

Overall Assessment Check-In



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FCC data suggests that the region has exceptional broadband infrastructure, but usage is very low

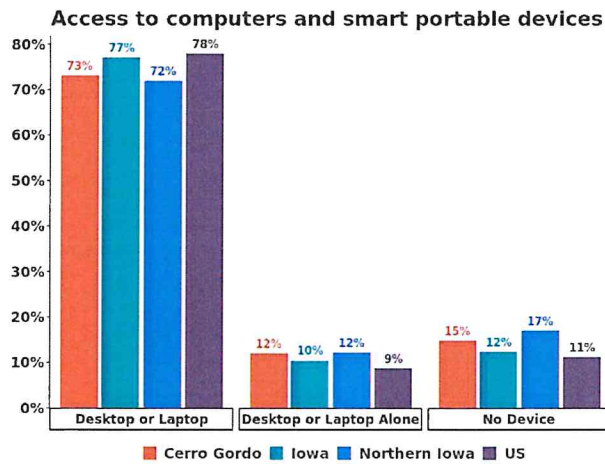


Availability: Share of the population with access to at 25Mbps/3Mbps broadband connection, per FCC data.

Usage: Share of Microsoft Windows users that are using at least a 25Mbps/3Mbps broadband connection based on Windows updates speeds.

Source: Availability - FCC; Usage - Microsoft

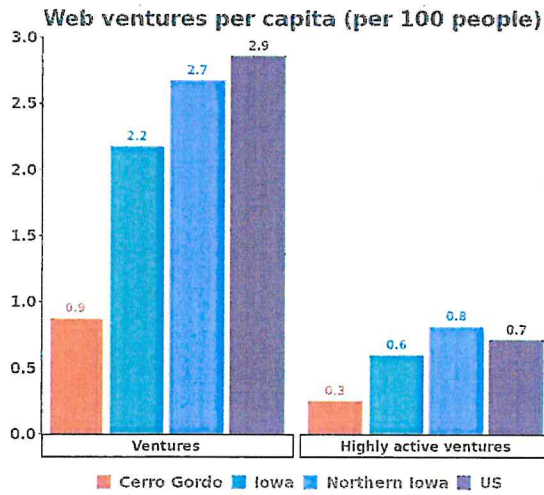
Households in the region are less likely to have access to a computer at home



While people access the internet with a wide range of devices, **access to a desktop or laptop** is critical for digital skilling and entrepreneurship.

Source: American Community Survey

Web activity in Cerro Gordo is very low compared to the state and the rest of the region

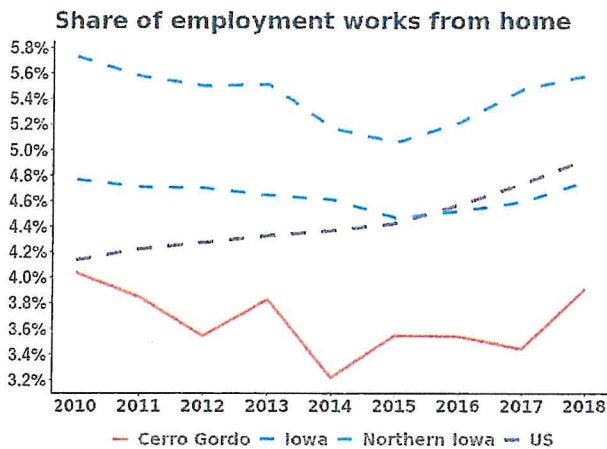


A web venture is a discrete web domain registered in a particular location that is actively in use.

Source: GoDaddy



The opportunity that broadband creates for people to work remotely hasn't been fully realized



Working from home—an option that typically expands with better broadband access—is less common in Cerro Gordo county than the state or US, but is much more common across the entire region.

Source: American Community Survey



Takeaways & Questions

- The data (assuming that it is correct, which often the FCC's is not) suggests that the region has excellent broadband access compared to other rural regions.
- Yet the data also suggests that this infrastructure is underutilized.
- This speaks to significant untapped potential to leverage this valuable infrastructure that sets your region apart.

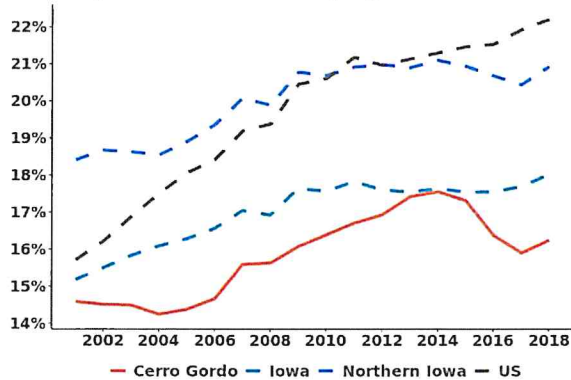
Questions:

- Has your community answered the "so what?" of broadband?
- What barriers stand in the way of widespread broadband utilization?
- What does your experience on the ground tell you about these dynamics?

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Key indicators of entrepreneurship suggest that the region is lagging in startup activity

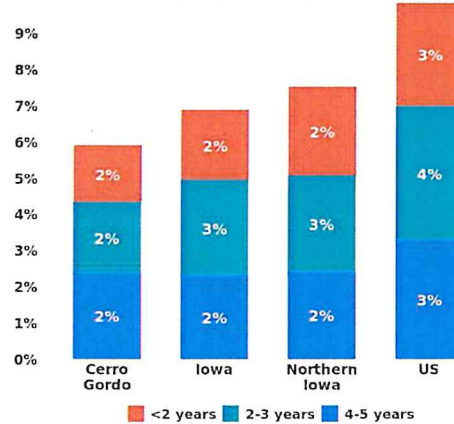
Proprietor share of employment



The most common age for successful startup founders is 46. Lagging rates of entrepreneurship could partly be a result of your aging population and workforce.

Source: BEA

Share of employment by young firms

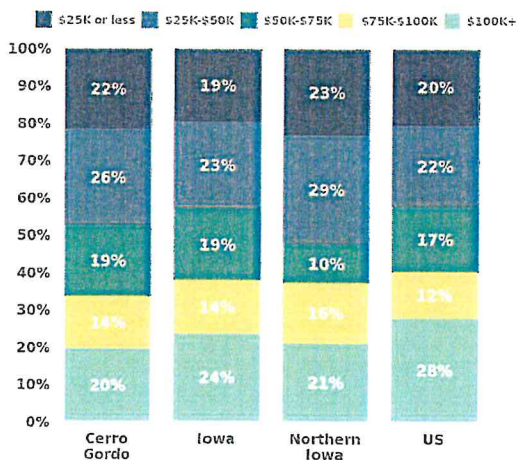


Source: US Census LEHD (2017)



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Fueling startups requires capital, which could be cultivated from the community



To be an accredited investor, a person must have an annual income exceeding \$200,000 (\$300,000 for joint income) for the last two years or have net worth exceeding \$1 million.

In 2019, there were 2,113 households in N. Iowa with incomes exceeding \$200,000, 710 of which lived in Cerro Gordo County.

Source: American Community Survey (2018)



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Takeaways & Questions

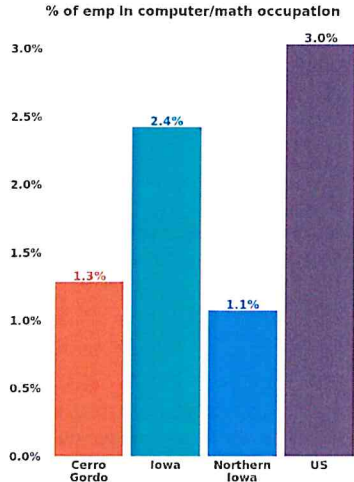
- The region has lagged in startup activity, likely partially driven by the aging population and workforce and the out-migration of young people.
- The high earners in the region offer a potential pool to draw upon to increase access to equity capital for startups (via angel networks, seed funds, etc.).
- Yet without increased entrepreneurial activity, deal flow will likely be an issue for investors, pointing to the need for more programs and supports that spur startup activity.

Questions:

- Why do you think that entrepreneurship activity has lagged?
- Are there barriers that are getting in the way of more startup activity?
- Do you have an examples of founders in the community who exemplify the kind of start-up activity that you'd like to cultivate?

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The region has an established foundation of tech workers to build upon



Source: American Community Survey (2018)

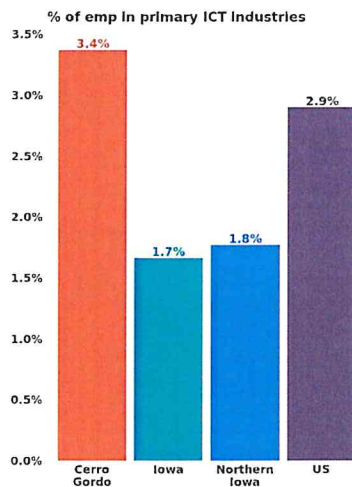
Jobs in computer and math occupations are the core of a tech economy. The share of these occupations in Cerro Gordo and the N. Iowa region is in line with that of rural America as a whole (~1% of employment).

The number of residents of Cerro Gordo County employed in computer and math occupation jobs grew by 20% from 2014 to 2018, even as the total employed population fell by 3%.



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Tech companies in the region are creating more jobs than just computer & math jobs



Source: County Business Patterns (2018)

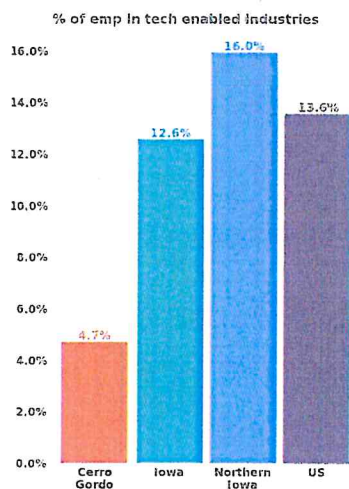
Cerro Gordo outperforms the state and US in the share of employment in **Information and Communication Technology industries**. Here are the number of jobs in some of the key industries where that employment is coming from:

- **Computer Systems Design Services: 190**
- **Software Publishers: 124**
- **Custom Computer Programming Services: 105**



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The region's manufacturing sector provides a strong base of tech driven companies



The strong manufacturing base in region means that a large share of the economy is based on tech-driven industries. We find that in many rural areas, the tech these employers use are produced somewhere else, **presenting an opportunity** to provide more tech services in the local market to meet their needs, and a **threat** that continued automation will displace local employment.

Source: County Business Patterns (2018)



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Post-secondary education programs in computer science aren't keeping pace with the opportunity

	Cerro Gordo	N. Iowa	Iowa	US
Computer Science grads within 30 min drive - 2 year (2017)	7	13	4,309	250,955
Computer Science grads within 30 min drive - 4 year (2017)	3	10	13,303	737,842
% of the population with a bachelor's degree or higher*	19%	17%	20%	22%

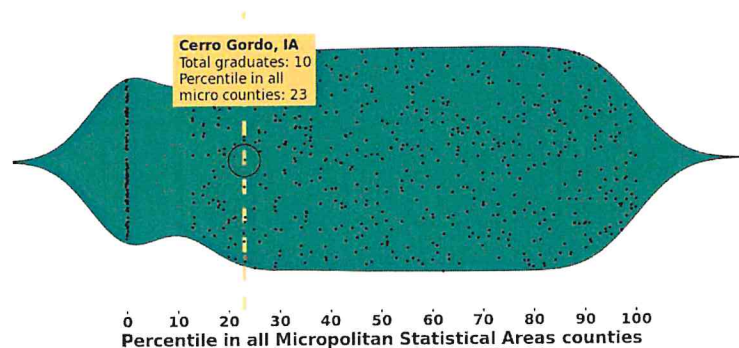
Source: US Dept of Education, *American Community Survey (2018)



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Cerro Gordo County is among the bottom quartile of micropolitan areas in terms of local CS grads

Cerro Gordo, IA has **10** computer science majored graduates in **2016-2017**. Among all micro counties, **Cerro Gordo, IA** ranks **156** of all **656** micro counties (~24% percentile).



Source: US Dept of Education



Takeaways & Questions

- The region has a strong foundation in the tech economy to build upon with tech workers and tech companies already present.
- Growing the tech economy will likely require a focus on building local tech training programs given the limited number of tech graduates coming out of local post-secondary institutions today.

Questions:

- How aware is the broader community of the tech activity that is already happening?
- How are tech companies recruiting talent today?
- Who is the digital jobs champion in your community that is promoting opportunities at local tech companies?



Overall Takeaways

- Northern Iowa economy faces several headwinds, including declining population, an aging workforce, slow employment growth, and the risk of automation in the manufacturing sector.
- Despite these challenges, the region already has a burgeoning digital economy, a strong employment base of tech-enabled industries, and exceptional broadband infrastructure.
- There is clear opportunity to support the continued growth of the digital economy by increasing startup activity and developing a digital talent pipeline.



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